What is claimed is:

1. A power supply circuit which generates a plurality of potentials, comprising:

a first step-up circuit connected to first and second power supply lines which supply first and second potentials, and the first step-up circuit supplying a third power supply line with a third potential stepped up based on a difference between the first and second potentials;

a potential regulating circuit which is connected to the first and third power supply lines and supplies a fourth power supply line with a fourth potential which is a constant potential generated based on a difference between the first and third potentials;

a second step-up circuit which is connected to the first and fourth power supply lines and supplies a fifth power supply line with a fifth potential stepped up based on a difference between the first and fourth potentials; and

a multipotential generating circuit which is connected to the first, fourth and fifth power supply lines and generates a plurality of potentials based on differences among the first, fourth and fifth potentials.

2. The power supply circuit as defined in claim 1,

wherein the multipotential generating circuit supplies the fourth potential as a center potential of a plurality of potentials supplied to a liquid crystal device.

3. The power supply circuit as defined in claim 1, wherein at least one of the first and second step-up circuits is a charge pump circuit including:

first, second, third and fourth switch circuits connected in series between a step-up power supply line to which a stepped-up potential is supplied and one power supply line having a lower potential in two power supply lines connected to the at least one of the first and second step-up circuits;

a capacitor connected in parallel to the second and third switch circuits when the second switch circuit is connected to the first switch circuit connected to the step-up power supply line, the third switch circuit is connected to the second switch circuit, and the fourth switch circuit is connected between the third switch circuit and the power supply line having a lower potential; and

a timing-signal generating circuit which generates a drive signal for the first to fourth switch circuits in such a way that the first and third switch circuits and the second and fourth switch circuits are alternately switched on.

4. The power supply circuit as defined in claim 3,

wherein each of the first to fourth switch circuits has a twin-well configuration comprising a first conductivity type well connected to the first power supply line and a second conductivity type well connected to the fifth power supply line.

5. The power supply circuit as defined in claim 1, wherein the multipotential generating circuit includes:

a first voltage dividing circuit which performs resistive division of a difference between the first and fourth potentials;

a second voltage dividing circuit which performs resistive division of a difference between the fourth and fifth potentials;

a first voltage-follower connected operational amplifier circuit which is connected to a potential obtained by resistive division performed by the first voltage dividing circuit; and

a second voltage-follower connected operational amplifier circuit which is connected to a potential obtained by resistive division performed by the second voltage dividing circuit.

6. The power supply circuit as defined in claim 1, wherein the multipotential generating circuit includes:

a first voltage-follower connected operational amplifier circuit which supplies a sixth potential and is connected to a potential obtained by resistive division of a difference between the first and fourth potentials;

a second voltage-follower connected operational amplifier circuit which supplies a seventh potential and is connected to a potential obtained by resistive division of a

difference between the fourth and fifth potentials;

a first step-down circuit which generates an eighth potential generated by stepping-down a difference between the fourth and sixth potentials; and

a second step-down circuit which generates a ninth potential generated by stepping-down a difference between the fourth and seventh potentials.

7. The power supply circuit as defined in claim 1, wherein the multipotential generating circuit includes:

a first voltage-follower connected operational amplifier circuit which supplies a sixth potential and is connected to a potential obtained by resistive division of a difference between the first and fourth potentials or a difference between the fourth and fifth potentials;

a third step-up circuit which generates a seventh potential generated by stepping-up a difference between the fourth and sixth potentials in a direction of the fourth potential;

a first step-down circuit which generates an eighth potential generated by stepping-down a difference between the fourth and sixth potentials; and

a second step-down circuit which generates a ninth potential generated by stepping-down a difference between the fourth and seventh potentials.

8. The power supply circuit as defined in claim 5, wherein

one of the first and second operational amplifier circuits includes:

a first conductivity type transistor having a gate to which a first differential output is supplied and a source to which the second potential is supplied;

a second conductivity type transistor having a gate to which a second differential output is supplied, a source to which the first potential is supplied and a drain which is connected to a drain of the first conductivity type transistor;

a first conductivity type differential amplifier circuit which generates the first differential output based on a difference between the potential obtained by resistive division and a potential at the drain of the first or second conductivity type transistor;

a second conductivity type differential amplifier circuit which generates the second differential output based on a difference between the potential obtained by resistive division and the potential at the drain of the first or second conductivity type transistor;

a first current control circuit which controls a constant current value of the first conductivity type differential amplifier circuit based on the second differential output; and

a second current control circuit which controls a constant current value of the second conductivity type differential amplifier circuit based on the first differential output.

9. The power supply circuit as defined in claim 8,

wherein in the first conductivity type differential amplifier circuit and the second conductivity type differential amplifier circuit, gates of transistors having different performances are respectively supplied with the potential obtained by resistive division and the potential at the drain of the first or second conductivity type transistor.

10. An operational amplifier circuit comprising:

a first conductivity type transistor having a gate to which a first differential output is supplied and a source to which a second potential is supplied;

a second conductivity type transistor having a gate to which a second differential output is supplied, a source to which a first potential is supplied and a drain which is connected to a drain of the first conductivity type transistor;

a first conductivity type differential amplifier circuit which generates the first differential output based on a difference between a given differential input potential and a potential at the drain of the first or second conductivity type transistor;

a second conductivity type differential amplifier circuit which generates the second differential output based on the difference between the differential input potential and the potential at the drain of the first or second conductivity type transistor;

a first current control circuit which controls a constant

current value of the first conductivity type differential amplifier circuit based on the second differential output; and

a second current control circuit which controls a constant current value of the second conductivity type differential amplifier circuit based on the first differential output.

11. The operational amplifier circuit as defined in claim 10,

wherein in the first conductivity type differential amplifier circuit and the second conductivity type differential amplifier circuit, gates of transistors having different performances are respectively supplied with the predetermined differential input potential and the potential at the drain of the first or second conductivity type transistor.

12. A power supply circuit comprising:

a voltage dividing circuit which divides a given potential; and

the operational amplifier circuit as defined in claim 10 to which a potential divided by the voltage dividing circuit is supplied as the differential input potential.

13. A power supply circuit comprising:

a voltage dividing circuit which divides a given potential; and

the operational amplifier circuit as defined in claim 11

to which a potential divided by the voltage dividing circuit is supplied as the differential input potential.

14. A liquid crystal device comprising:

the power supply circuit as defined in claim 1;

a liquid crystal panel having a plurality of scan electrodes and a plurality of signal electrodes laid out in an intersecting manner;

a scan-electrode drive circuit which drives the scan electrodes upon reception of power from the power supply circuit; and

a signal-electrode drive circuit which drives the signal electrodes upon reception of power from the power supply circuit.

15. A liquid crystal device comprising:

the power supply circuit as defined in claim 12;

a liquid crystal panel having a plurality of scan electrodes and a plurality of signal electrodes laid out in an intersecting manner;

a scan-electrode drive circuit which drives the scan electrodes upon reception of power from the power supply circuit; and

a signal-electrode drive circuit which drives the signal electrodes upon reception of power from the power supply circuit.

16. A liquid crystal device comprising:

the power supply circuit as defined in claim 13;

a liquid crystal panel having a plurality of scan electrodes and a plurality of signal electrodes laid out in an intersecting manner;

a scan-electrode drive circuit which drives the scan electrodes upon reception of power from the power supply circuit; and

a signal-electrode drive circuit which drives the signal electrodes upon reception of power from the power supply circuit.

17. An electronic instrument comprising the liquid crystal device as defined in claim 14.

18. An electronic instrument comprising the liquid crystal device as defined in claim 15.

19. An electronic instrument comprising the liquid crystal device as defined in claim 16.